Northeast Region Forest Pest Update - 06/14/06

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Insects:

BREAKING NEWS: Emerald Ash Borer found in Illinois, just south of WI border – EAB has just been found in Lily Lake, Illinois, which is located just west of Chicago and only about 40 miles south of the Wisconsin border. Larvae were found infesting several ash trees in the area. The infestation is several years old, possibly up to 6 years old, with some trees showing extensive damage. This EAB infestation was noticed and reported by the homeowner which proves that education of the general public works and is worthwhile. The map at right is the latest showing areas where EAB is found, including the new location in IL. The 2 locations in the UP are 1) EAB found on firewood with no ash trees in the area, and 2) the Brimley State Park infestation where eradication was conducted.



European pine sawfly – defoliation of Scotch and Austrian pines by European Pine Sawfly was noted in Manitowoc County. Sawfly



larvae look similar to a naked caterpillar and feed in groups (left). European Pine Sawflies are dark green in color with 3 pale stripes on the body and a black head. Damage can be severe but is usually limited to defoliation of the 2nd year needles. The photo at right shows that all of the old needles have been eaten but new growth is not affected so trees are rarely killed by this damage.



Goldsmith beetles – this large beetle looks like a metallic-yellow-colored June Beetle with



dense hair underneath (photo at left). Goldsmith beetles (*Cotalpa lanigera*) feed on Poplar foliage as adults; they do their feeding at night. Goldsmith beetle larvae are C-shaped white grubs that lives underground, feeding on the roots of poplar and other trees. Adults are often attracted to lights and every Goldsmith Beetle that I've ever found has been at gas stations where they were attracted to the bright lights.

Gypsy moth - from Bill McNee, NER gypsy moth suppression coordinator. Gypsy moth caterpillars are in the 4th and 5th instar in southern Wisconsin, which means that the peak period of nuisance complaints and defoliation should begin occurring in the southern part of NER soon. The northern and lakeshore counties in NER are a week or more behind, so these areas should expect impacts to begin in about two weeks. Burlap bands should be put up ASAP if they haven't yet.

May and June of 2006 has been warmer than in 2005, and as a result, larval development is occurring faster than last year. This usually means that populations increase because there is less time for natural enemies and fungal diseases to attack the caterpillars, but the wet weather we had back in May may help to keep numbers down. Egg mass surveys this fall will give us the answer.

Nuisance complaints have been sparse so far, with most calls turning out to be eastern tent caterpillar. Eastern tent caterpillars make a silk nest or tent in the tree; gypsy moth caterpillars don't.

Gypsy moth management advice and downloadable brochures are available at gypsymoth.wi.gov. Homeowners can also call 1-800-642-MOTH for assistance.

Horned oak gall – these galls are caused by a small wasp. The horns (at right) grow from the gall during the second or third year of development when the larvae inside are nearing full development. Horned Oak Galls look very similar to Gouty Oak Galls except that the Horned Oak Galls has horns. If you cut a gall open you should find larvae inside. The damage caused by the growth of the gall and the feeding of the larvae inside the gall can cause the branch to die.



June beetle defoliation – last year was a good year for June Beetles, the larvae had it good with the hot dry summer, and survival was high. As adults are emerging this spring they will often congregate around lights and feed on a nearby tree. Adults prefer oak in this area but will also feed on other species. Since they only feeding during the night the defoliation seems to appear magically and I get reports like: "there were leaves on my tree last night and this morning the leaves are all gone, but I can't find any bugs!". Control is difficult since defoliation is often complete before you even know that you should be spraying. Turning off exterior lighting can help by not attracting them to your yard.

Linden Looper – sugar maple is being defoliated across northern parts of Wisconsin by Linden



Looper. Counties affected include northern Vilas County and parts of Forest and Florence Counties. This is reportedly a fairly widespread outbreak occurring in northern Wisconsin and the western U.P. This native caterpillar defoliates many species of deciduous trees but is currently focusing on sugar maple, with some feeding occurring on aspen and yellow birch. These caterpillars move like an inchworm.

The caterpillar photo above was taken by Ron Eckstein, wildlife biologist out of Rhinelander, who noticed the extensive defoliation while flying the aerial survey for bald eagles and who has Linden Looper actively defoliating some of his own trees.

Maple petiole borer - whole maple leaves on the ground with a broken petiole may be damage from maple petiole borer. This tiny sawfly larvae bores into the petiole of maples and feeds within the petiole creating a weak spot which will break and the leaf will drop to the ground. There are no sprays that I would recommend and damage is usually light. Although the leaves lying on the ground can look alarming to many people I usually point out to homeowners that if you look up into the crown you cannot tell that any leaves have fallen, so the tree is really just fine. I've had reports of this from every county in NER with the heaviest damage being in Waupaca, Oconto, and Forest Counties

Poplar-and-Willow Borer – I've examined willow trees in Oconto and Manitowoc Counties that have been badly damaged by Poplar-and-Willow Borer (*Cryptorhynchus lapathi*). This exotic borer is a weevil.



The larvae are white with a brown head, are slightly C-shaped, and feed under the bark causing significant damage to the cambium as well as boring into the wood creating structural weakness. Symptoms include trees leafing out in the spring only to have the leaves shrivel and turn brown (above right). Closer examination of these trees will reveal boring signs, frass and sawdust (right), sap flow, and by peeling the bark you will find the larvae (left). Damage can occur on all willow species and most *Populus* species. Young trees can be top-killed but I





suspect this just triggers the tree to start producing root sprouts, so the trees aren't truly killed.

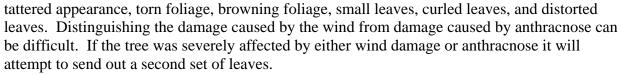
Willow sawfly – these pretty sawfly larvae (*Nematus ventralis*) were found defoliating a Corkscrew Willow. They seemed to prefer this willow and were not feeding on the native willows nearby. Defoliation can be complete, with all leaves being consumed, but willow is often able to recover easily.

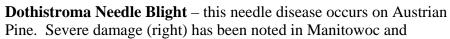


Diseases:

Anthracnose and Wind Damage to leaves - this year some trees are more severely affected by anthracnose than others but most have some damage. The most common trees with anthracnose this year are ash, maple, and oak (right), but others species are also affected. Anthracnose causes portions of the leaf to die and may cause the leaf growth to be distorted. Usually these brown dead areas of the leaf are not a threat to the health of the tree and will merely make it a little unsightly. Early ash leaf drop, reported from most counties throughout NER, may be attributable to early anthracnose infections.

Additionally, on May 11, we had very strong winds which tattered and damaged the leaves on many tree species. This damage appeared in different ways including: lacey







Waupaca Counties this year. This severe damage may be related to the drought stress caused to the trees last summer. This stress to the tree would have allowed Dothistroma Needle Blight to infect the tree more easily. Austrian pines (both plantations and landscape trees) remain susceptible to this fungus throughout the life of the tree so trees of all sizes may show symptoms; trees under stress will show more symptoms than healthy



trees. Dothistroma needle blight starts with the fungus infecting the needles and causing reddish-brown spots. From the point of the infection to the tip of the needle will quickly die, the base of the

needle will remain green (photo above).

Phomopsis galls on oak - phomopsis galls are caused by a fungus and can be unsightly on the branches of your tree (people often notice them in the winter with the leaves off). In northeast Wisconsin I find them most commonly on oak (right) and hickory. Infections are often localized to a single tree, with neighboring trees completely unaffected, or a small group of trees may be infected, or it may be found scattered throughout stand. Large galls can girdle and kill branches in the crown and on the main stem. There is no known treatment for Phompsis galls other than to prune them out and dispose of them, or simply live with them. Use caution when working around these trees, dead galls can break off and fall to the ground; large galls can be larger than your head. Photos at right were taken by Craig Dalton (from Woodruff) of oaks on the NHAL State Forest.





Slime molds – many reports of slime mold already this year, most occurring in areas with wood chips. Slime molds are currently considered a fungi although they have a "creeping" phase where they are fairly mobile and they ooze around. Stepping on slime mold is not recommended, they're fairly slippery, and falling into them is not all that pleasant either (ask me about it sometime). Slime molds feed on decaying plant material (like wood chips and bark mulch) and other small dead organisms which the slime mold can cover and ingest. There is a wide variety of slime molds and they can be brightly colored. After their slimy mobile stage they dry up and start their spore production. Unless they are covering valuable plants there is no need to control slime molds and they are not usually around for very long. Want to know more about slime molds? Check out Tom Volk's slime mold page at http://botit.botany.wisc.edu/toms_fungi/june99.html, Tom is with UW La Crosse.

Other:

Ash leaf drop – once again this spring there were multiple reports of ash trees dropping their leaflets. Most of the leaves dropped appeared to have some damage by anthracnose (right) but I'm unsure of the exact cause of the leaf drop. Some trees dropped a high percentage of their leaves but have begun to send out additional leaves already.



Oak tatters – oak tatters was reported in Waupaca County. Although it's not known exactly



what causes oak tatters to occur (cold temps, wind, or herbicides) the symptoms look like severe defoliation from insects (left). This year we had strong winds on May 11 that may have caused oak tatters. To identify oak tatters look closely at the leaves; you'll notice that the leaf edges aren't actually chewed by insects, rather the leaves just didn't form all the tissue that they should have, giving them a lacey appearance. Oak tatters is found primarily on white oak but sometimes red oaks can be affected as well.

Public Hearings on Rule for Regulation of Firewood – on July 5 the Department of Natural Resources will hold a public hearing on the creation of § NR 45.04(1)(g), Wis. Adm. Code, relating to the regulation of firewood entering and exiting Department lands. The rule prohibits a person from possessing firewood that originates from greater than 50 miles from the campground on that property where the wood would be used, or the property itself if there is no campground, or from outside the borders of the state of Wisconsin. Firewood from sources approved by the Wisconsin Department of Agriculture, Trade and Consumer Protection is allowable. Firewood includes all wood, processed or unprocessed, meant for use in a campfire. The purpose of this rule is to regulate firewood entering properties managed by the Department to reduce the risk of introduction and spread of emerald ash borer and other invasive insects and diseases of trees. For more information, contact Dr. Andrea Diss Torrence at (608) 264-9245. Video conference participation for the hearing will be hearing will be available beginning at 7 p.m. at the following locations:

Green Bay – Room MAC137, UW-Green Bay, 2420 Nicolet Dr. Madison – Room 227, Pyle Center, 702 Langdon St. Wausau – Room 220, UW-Wausau, 518 South 7th Ave.

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